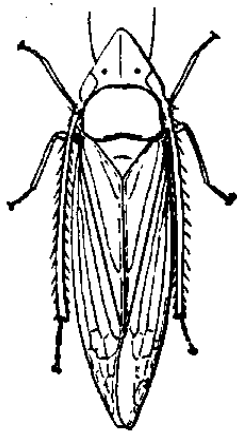


PLANT & PEST ADVISORY

FIELD CROPS/LIVESTOCK EDITION \$1.50

JULY 6, 2000



Potato Leafhopper Populations Rising

Daniel Kluchinski, Mercer County Agricultural Agent

Across the state, alfalfa fields are exhibiting yellowing and stunting. The cause? Feeding of potato leafhopper. This insect is pale to bright green in color, about 1/8 inch long and slightly wedged shaped as an adult, or slightly smaller and wingless as the nymph. Both stages of the insect cause injury by sucking juice from the plant. The saliva produced by the insect is injected into the plant, leading to injury that appears as a V-shaped wedge at the leaf tips or yellowing of foliage. With severe feeding, plants can also become stunted in height.

Potato leafhopper (PLH) is now in alfalfa fields in many geographical areas of the state over the established threshold numbers. Above this threshold, economic losses are great enough that spraying to control the insect or harvesting the crop early, if feasible, is recommended. Unfortunately, once the visible damage is seen, the losses in forage quality have already occurred. The only way to be aware of PLH populations is to scout your fields!

Scouting must be done weekly with a sweep net. Twenty sweeps are taken in five locations in the field. The number of PLH found in the net are counted and divided by 100 (100 total sweeps taken) to determine the number of PLH per sweep. Then the threshold table is used to determine if this population level at the current plant height is over threshold or not. The threshold determines if some action is required to avoid or stop injury to the crop, or if PLH populations are still low enough that no action is needed.

For example, our alfalfa is six inches tall. Our scouting determines there are 100 potato leafhoppers in our 100 sweeps; this would be an average of one PLH per sweep. Using the graph, we see that one PLH per sweep at six inches of height is over threshold. Because the crop is too short to harvest, we should apply an insecticide to prevent further damage. If the crop had been 20 inches high, and found only an average one PLH per sweep, there would be no need to take any action. This amount of PLH at this stage in the plant growth will not cause economic losses. However, the fields should be scouted on a weekly basis to monitor changes in PLH populations.

Remember that early detection is important. If the PLH population is reaching threshold when the plants are close to maturity, cut rather than spray. Watch the regrowth for PLH populations. Popula-

SEE PLH ON PAGE 2

INSIDE

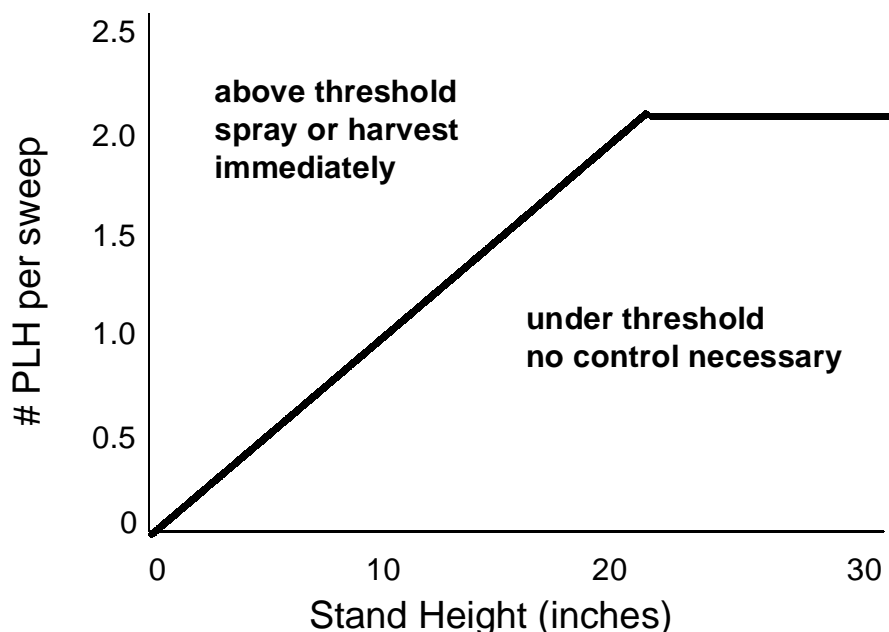
Potato Leafhopper Populations Rising 1

Weekly Weather Summary 2

Plant Diagnostic Laboratory & Nematode Detection Service 3

Field Crop Twilight Meeting 3

Threshold for Potato Leafhopper in Alfalfa



PLH FROM PAGE 1

tions may drop, so a stubble spray is not always necessary. In addition, variation occurs between fields. A threshold population of PLH in one field does not mean that all of your fields are at threshold.

For information on how to scout, how to purchase or build a sweep net, or use the threshold chart, contact your county Extension agent. Additional information is included in the Rutgers *Field Crop Production Recommendations* and insecticide recommendations in the *2000 Pest Management Recommendations for Field Crops*. □

Weekly Weather Summary

Keith Arnesen, Ph.D., Agricultural Meteorologist

Temperatures averaged near normal. Extremes were 92 at several locations on the 27th and 48 degrees at Charlotteburg on the 1st. Weekly rainfall averaged 0.49 inches north, 0.19 inches central, and 1.69 inches south. The heaviest 24 hour total was 2.00 inches at Pomona on the 28th to the 29th. Estimated soil moisture, in percent of field capacity, this past week averaged 75 percent north, 50 percent central and 75 percent south. Four inch soil temperatures averaged 71 degrees north, 74 degrees central and 75 degrees south.

Weather Summary for the Week Ending 8 am Monday 7/03/00

WEATHER STATIONS	RAINFALL			TEMPERATURE				GDD BASE50		MON %FC
	WEEK	TOTAL	DEP	MX	MN	AVG	DEP	TOT	DEP	
BELVIDERE BRIDGE	.66	20.20	4.53	86	54	71.	0	1019	98	73
CANOE BROOK	.26	13.74	-3.04	91	55	73.	2	1134	232	64
CHARLOTTEBURG	.44	17.67	.68	89	48	68.	0	805	94	67
FLEMINGTON	.13	15.87	-.20	91	54	72.	0	1163	229	64
LONG VALLEY	.94	17.42	.23	84	55	69.	0	892	116	77
FREEHOLD	.11	11.38	-4.36	92	60	75.	3	1242	213	52
LONG BRANCH	.22	14.54	-1.22	88	55	71.	-1	1050	92	34
NEW BRUNSWICK	.07	14.85	-.54	91	56	74.	0	1199	103	62
PEMBERTON	.30	13.79	-1.51	92	55	74.	1	1637	573	33
TOMS RIVER	.42	14.68	-1.02	91	56	73.	0	1182	225	42
TRENTON	.02	13.10	-1.30	89	57	73.	-1	1257	112	41
CAPE MAY COURT HOUSE	.98	14.97	1.07	90	59	73.	0	1222	184	45
DOWNTOWN	2.05	15.34	1.12	92	58	74.	0	1309	147	75
GLASSBORO	1.05	15.75	.38	91	58	75.	1	1404	263	71
HAMMONTON	2.03	14.54	-.47	90	57	74.	0	1257	123	77
POMONA	2.16	14.00	.41	92	57	73.	1	1204	163	78
SEABROOK	2.44	17.22	3.52	92	60	74.	0	1390	221	80
ATLANTIC CITY MARINA	1.09	14.21	1.21	89	64	73.	1	1213	242	52
SOUTH HARRISON	1.23	19.62	4.22	89	60	74.	NA	1401	NA	NA

As of June 26th, South Harrison replaced Woodstown, but the values will be compared to the normals for Woodstown because no normals exist for South Harrison.

WES KLINE — GDD BASE 40 PINEY HOLLOW Last Week 236 (Ending 6/26/00) This Week 240 (Ending 7/03/00)

Plant Diagnostic Laboratory & Nematode Detection Service

The Plant Diagnostic Laboratory is a diagnostic service available to the residents of the State of New Jersey. The mission of the Plant Diagnostic Laboratory is to cooperate with Rutgers Cooperative Extension (RCE) personnel to provide the residents of New Jersey with accurate and timely diagnoses of plant problems. There is a fee for this service (see sidebox).

The laboratory was established in 1991 on the Cook College campus of Rutgers, The State University of New Jersey. The lab began accepting samples in July of 1991 and is now fully operational.

The Plant Diagnostic Laboratory is staffed with two full-time diagnosticians who are trained in all aspects of plant health. Seasonal employees and students assist in the lab. The Plant Diagnostic Laboratory staff works in close cooperation with Rutgers Cooperative Extension specialists, county faculty, and other university personnel, to provide accurate diagnosis and up-to-date recommendations.

How to Submit Samples

1. Sample submission forms can be obtained from your local county Rutgers Cooperative Extension office. They can also be downloaded from the Rutgers Cooperative Extension website at: <http://www.rce.rutgers.edu/plantdiagnosticlab/index.html>. Forms are also available on RCE's 24-hour fax back service, FaxInfoLine at 732-932-6767 (documents 3605, 3602, 3603, 3604 and 3606 respectively, as listed below). There are five distinct forms:
 - ◆ Plant Identification Submission Form (22 KB PDF).
 - ◆ Golf and Landscape Turf Submission Form (23 KB PDF).
 - ◆ Landscape, Home Grounds, and Garden Submission Form (21 KB PDF).
 - ◆ Commercial Growers Submission Form (22 KB PDF).
 - ◆ Insect and Tick Identification Submission Form (27 KB PDF).
2. Completely fill out the sample submission form.
3. Collect the appropriate samples, then carefully follow all of the directions.
4. Properly package the sample, submission form, and payment.
5. Mail the sample to the address on the form.
6. The laboratory will respond with the diagnosis by mail in a timely manner. □

Diagnostic Lab Fee Schedule

All In-State Samples (except fine turf)	\$20
In-State Fine Turf	\$50
All Out-of-State Samples	\$75
Other Services Negotiable	

Field Crop Twilight Meeting

August 2, 2000

Rutgers Cooperative Extension, New Jersey Grain and Forage Producers' and North Jersey RC&D, will sponsor a trade show and twilight meeting for field and forage crop producers on August 2, 2000 at the Rutgers' Snyder Research and Extension Farm, Pittstown (Hunterdon County), NJ.

The program will include presentations on research projects being conducted by Rutgers Cooperative Extension, updates from the Grain and Forage Producers' Association and USDA agencies. Presentations on practical hands-on methods to improve crop production, farm management, and profit margins will be given, including: an update on the NJ ethanol facility plans, corn and soybean variety trials, nutrient and integrated pest management techniques, phosphorus management in corn, perennial weed management in grain crops, wildlife management options, malting barley production for micro-breweries, and pesticide handling and safety information.

A trade show will be held 4:00-6:00 PM, a free buffet dinner will be served 5:00-6:00 PM, and the farm tour/educational program will start at 6:00 PM. New Jersey pesticide license recertification credits (1-core, 2- Category 1A, 2-Category PP2) will be available. Registration is required by July 26th to assist us in ordering food by calling the Mercer County office of Rutgers Cooperative Extension at 609-989-6830.

The Snyder Research and Extension Farm is located just south of the village of Pittstown in Hunterdon County. From Flemington, take Route 12 West to County Road 615/Pittstown Road. Turn right and follow to Locust Grove Road (Snyder Farm sign on your right). Make a right turn on Locust Grove Road, and proceed to the farm entrance on the left. From Route 78 (Clinton), take Route 513 south to Pittstown. In Pittstown, do not follow Route 513, rather continue straight through the village, and continue for approximately 2 miles to Locust Grove Road. (Snyder Farm sign on your far left). Make a left turn and proceed to the farm entrance on the left.

There is no rain date. The entire site is handicapped accessible, however, if inclement weather precedes the event, wheelchair access may be limited. Call 609-989-6830 for information. □

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